§ 30.65

multiplying the wine gallons by the true proof.

Example. 5,350 pounds of blended whisky containing added solids

Temperature °F	75.0°
Hydrometer reading	92.0°
Apparent proof	85.5°
Obscuration	0.5°
True proof	86.0°
5,350.0 lbs.×0.12676 (W.G. per pound fac	tor for

5,350.0 lbs.×0.12676 (W.G. per pound factor for apparent proof of 85.5°)=678.2 wine gallons 678.2 W.G.×0.86=583.3 proof gallons

(Sec. 201, Pub. L. 85-859, 72 Stat. 1358, as amended 1362, as amended (26 U.S.C. 5204, 5211))

§ 30.65 Table 5, showing the weight per wine gallon (at 60 degrees Fahrenheit) and proof gallon at each percent of proof of spirituous liquor.

This table may be used to ascertain the weight of any given number of wine gallons (at 60 degrees Fahrenheit) or proof gallons of spirits by multiplying the pounds per gallon by the given number of gallons of the spirits. The table should be especially useful where it is desired to weigh a precise quantity of spirits.

Example. It is desired to ascertain the weight of 100 wine gallons of 190 proof spirits: 6.79434×100 equals 679.43 pounds, net weight of 100 wine gallons of 190 proofs spirits.

Example. It is desired to ascertain the weight of 100 proof gallons of 190 proof spirits.

3.57597×100 equals 357.60 pounds, net weight of 100 proof gallons of 190 proof spirits.

The slight variation between this table and Tables 2 and 3 on some calculations is due to dropping or adding of fractions beyond the first decimal on those tables. This table also shows the weight per wine gallon (at the prevailing temperature) corresponding to each uncorrected reading of a proof hydrometer.

(Sec. 201, Pub. L. 85–859, 72 Stat. 1358, as amended (26 U.S.C. 5204))

§ 30.66 Table 6, showing respective volumes of alcohol and water and the specific gravity in both air and vacuum of spirituous liquor.

This table provides an alternate method for use in ascertaining the quantity of water needed to reduce the strength of distilled spirits by a definite amount. To do this, divide the alcohol in the given strength by the alcohol in the required strength, multiply the quotient by the water in the required strength, and subtract the water in the given strength from the product. The remainder is the number of gallons of water to be added to 100 gallons of spirits of the given strength to produce a spirit of a required strength.

Example. It is desired to reduce spirits of 191 proof to 188 proof. We find that 191 proof spirits contains 95.5 parts alcohol and 5.59 parts water, and 188 proof spirits contains 94.0 parts alcohol and 7.36 parts water.

- 95.5 (the strength of 100 wine gallons of spirits at 191 proof) divided by 94.0 (the strength of 100 wine gallons of spirits at 188 proof) equals 1.01.
- 7.36 (the water in 188 proof) multiplied by 1.01 equals 7.43.
- 7.43 less 5.59 (the water in 191 proof spirits) equal 1.84 gallons of water to be added to each 100 wine gallons of 191 proof spirits to be reduced.

This rule is applicable for reducing to any proof; but when it is desired to reduce to 100 proof, it is sufficient to point off two decimals in the given proof, multiply by 53.73, and deduct the water in the given strength. Thus, to reduce 112 proof spirits to 100 proof:

 $1.12 \times 53.73 - 47.75$ equals 12.42 gallons of water to be added to each 100 wine gallons of spirits to be reduced.

This table may also be used to obtain the proof gallonage of spirituous liquor according to weight and percent of proof.

Example. It is desired to determine the number of gallons in 400 pounds of spirits of 141 percent of proof. Multiply the weight of one gallon of water in air by the specific gravity in air of the spirits—8.32823 by 0.88862—the product (7.40063) divided into 400 gives 54.049 wine gallons, which rounded to the nearest hundredth is 54.05 and multiplied by 1.41 gives 76.2 proof gallons. In rounding off where the decimal is less than five, it will be dropped; if it is five or over a unit will be

(Sec. 201, Pub. L. 85–859, 72 Stat. 1358, as amended (26 U.S.C. 5204))